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Fax Cover Sheet

To: All members of the Sandy Smelter Site Working Group

From: Louise Smart and Daniel Bowling (fax: 303-442-7442, phone: 303-442-7367)

Date: July 10, 1997

Re: July 30, 1997 Meeting

EPA - SANDY SMELTER SITE

Number of pages (including cover): 10

Message:

Attached is the Draft Working Session Summary from our June 26, 1997 Working Group meeting. We are looking forward to meeting with you on July 30 in Sandy City.

SANDY SMELTERS SITE FACILITATION
DRAFT WORKING SESSION SUMMARY
JUNE 26, 1997 WORKING GROUP SESSION

Working Group Participants Present:

Bonnie Lavelle, Nancy Mueller, Susan Griffin, Lori Jensen, Andy Lensink, and Paul Rogers, representing EPA; Mark Day, Cliff Vaterlaus, Renette Anderson, and Scott Everett, representing UDEQ; Don Robbins, Jim Fricke, Michael Thorp, Rob Jolley, representing ASARCO; Byron Jorgenson, Rick Davis, Scott Cowdell, Steve Osborn, and Phil Glenn, representing the City of Sandy; and Louise Smart and Daniel Bowling, facilitators from CDR Associates.

Introduction and Background:

Bonnie Lavelle, the EPA Remedial Project Manager for the Sandy Smelters Site, began the Working Group Session by providing the participants with background information about the historic Sandy project. She noted that the project began in the summer of 1992, when EPA did a broad study of the Salt Lake City Valley area, and was continued by a more focused study to assess the risk in Sandy. The testing included soil, dust, water, and paint. The lead concentrations measured in the soil of some properties were sufficiently high to warrant removal. There was general agreement among EPA, ASARCO, and UDEQ on this level of lead in soil [4000 parts per million (ppm)], and 45 properties were cleaned up between 1994 and 1996. Both EPA and ASARCO conducted portions of this work. Similarly, the soil lead concentrations of some properties are so low that there is general agreement that no action needs to be taken. It is the properties with soil lead concentrations between these two levels that need to be addressed to provide closure for the Sandy site.

Ms. Lavelle stated that the purpose of this Working Group is to focus on the borderline properties and determine what needs to be done to be protective over time. She expressed her hope that the Working Group would reach consensus on a proposed plan of remediation for EPA to consider. She made it clear that EPA was the final decision-maker, but that it was seeking community input to assist it in making a decision.

She also acknowledged that on a national level, EPA has begun to develop national policies to provide consistent approaches to the clean up of lead contaminated sites. She concluded by stating that the fundamental concern of EPA is to address the long term public health solution for the lead in the soils at the Sandy Smelters site.

The facilitators then reviewed the proposed Agenda and the Draft Guidelines for the Working Group and obtained the participants' consent to those documents.

Participants' Interests:

Throughout the meeting, the participants identified their underlying interests and concerns regarding the potential action at the Sandy Smelters Site.

Representatives of the City of Sandy noted that their interests are to:

- Obtain a speedy conclusion to the process for the residents and the City
- Determine whether there is a health problem, and if so, at what lead level
- Obtain a direct and final answer from the EPA and UDEQ scientists as to any health risk
- Speed up the process, if EPA determines that further remediation is necessary
- Understand the concerns of EPA, given that blood lead tests have not revealed any child with a lead level above 10 ug/dl and that the City does not perceive a health problem in historic Sandy which needs to be addressed
- Focus the Federal Government and tax dollars on more important problems to Sandy citizens, since the lead issue has not created any injured parties in historic Sandy
- Understand the nationwide consistency issue within EPA and its relation to the Sandy site
- Provide assurance to the residents of historic Sandy that they live in a safe and healthy area
- Recognize the political implications of the decision, while making certain the EPA decision is based on scientific and engineering analysis, rather than on political considerations
- Obtain the disclosure of any data showing that there is a health risk (in view of the blood lead tests). If the data shows a health risk, the EPA should order any necessary remediation; if the data shows no risk, the EPA should consider the project completed.
- Express concern that EPA's regulatory requirements may not effectively determine whether there is, in fact, a health risk or determine what remediation would be effective, if there is a risk
- Avoid any long-term monitoring through a Community Protective Measures program (CPM) which might imply a continuing health hazard and which might create a problem for the residents and homeowners in historic Sandy to sell their homes or to obtain loans
- Avoid institutional controls in historic Sandy which are beyond the City's capacity to operate and monitor
- Ensure that current owners and potential buyers have full information about any CPMs, including long-term monitoring, so that they can make informed decisions; this should be done wthout placing an implementation burden on the City
- Protect the City of Sandy from the potential liability of not taking action if indeed there is a risk to children

EPA representatives stated that their interests are to:

- Protect the citizens of Sandy from a health problem, while taking into account the predicted level of risk and the information contained in the blood lead tests
- Be confident that the conclusions of the citizens of Sandy about health risk are based on EPA information about the lead levels in the soil
- Make certain the regulatory requirements, including the remediation criteria of effectiveness, implementability, and cost are followed
- Resolve the underlying conflict concerning the appropriate basis, including regulatory criteria, on which health risk and remediation effectiveness are determined.
- Develop a conceptual approach that will meet everyone's interests

ASARCO representatives noted that they recognize the responsibilities that other organizations have regarding these issues and that they are willing to work in a facilitated process, with the intention of generating a recommendation for EPA to consider, and stated that their interests are to:

- Recognize the results of blood lead level tests conducted by the University of Cincinnati and the Salt Lake City/County Health Department in determining whether further remediation efforts are required
- Make sure the IEUBK Model accurately predicts what is happening in historic Sandy, given the blood lead tests
- Dispel any impression that the Sandy Smelters Site is a no-action situation, given the soil removal that has already occurred
- Give EPA the information needed to help EPA make a decision and to obtain consensus among the participants so they can support the decision politically
- Reach a conclusion on the remediation of the site
- Reach a conclusion which is reasonable, cost-effective, and safe and secure for the residents.

UDEQ representatives explained that their interests are to:

- Obtain a clear decision from EPA so that any required engineering analysis can be done expeditiously
- Determine whether it is appropriate to use blood level as the sole basis for reaching a remediation decision
- Recognize the bias and uncertainty that exist in research
- Create consistency between remediation requirements imposed on different sites throughout Utah
- Consider the impact of "hot spots" on the average lead contamination in a yard
- Seek assurance that any institutional controls imposed are effective, necessary and capable of being monitored

Terry Sadler, the representative of the Salt Lake City/County Health Department, described the blood lead level testing by his Department, which included 256 children living in Sandy City. That study revealed that the Sandy children had lower blood lead level averages than the national or state averages. He said that the interests of his Department were to determine whether there is a health problem that needs to be addressed, given these test results.

EPA's Regulatory Goal for the Sandy Smelter Site

Bonnie Lavalle explained the fundamental regulatory goals set by EPA, including the basic criteria which EPA must follow in reaching a remediation decision:

- **Effectiveness**, on a long-term and permanent basis, as well as a short-term basis
- **Implementability**, which includes considering state and community acceptance of any remediation program
- **Cost**, which is considered only after the other criteria are addressed (higher levels of protection are required to justify higher cost, or lower cost remediation alternatives must not decrease the required level of protection)

She said that EPA is obligated to follow the IEUBK Model in determining whether there is a health problem with certain levels of lead in the soil. When the IEUBK Model is applied to the conditions in historic Sandy, the model establishes that levels of lead in soil within a range of 890 ppm to 1800 ppm would achieve EPA's health goal of no more than a 5% chance that an individual child or group of similarly exposed children would have a blood lead level exceeding 10 ug/dl. The Risk Manager is required to use judgment in applying the results of the model to the actual situation in each yard and choose a level within this range as the action level for the site. Ms. Lavelle said that through an analysis of the conditions at Sandy, EPA believes that lead levels of 1800 ppm and below are sufficiently protective. She stated that since there are thirteen properties that, on the surface, have lead concentrations above 1800 ppm, some further action will need to be taken.

Ms. Lavelle presented the results of the EPA soil tests. Thirteen properties have over 1800 ppm of lead (the range was 2900 to 1810 ppm) in the surface soil, defined as the first two inches of soil. An additional 54 properties are over 1800 ppm in the subsurface soil, defined as eighteen inches below the surface. EPA's concern is that this soil could come to the surface through construction, gardening, landscaping or some other process. In determining the actual numbers of properties requiring soil removal and the extent of the soil removal, the EPA will consider information on zoning categories and the community situation and habits, addressing such issues as whether the yards in question are well-sodded, whether new construction is likely, and whether people are prone to dig in their yards. She presented a map of the area, highlighting these 67 properties. She said that the basis for considering remediation for yards with

subsurface soil above the 1800 ppm level is that EPA feels a strong obligation to protect the citizens of Sandy for the future.

Ms. Lavelle said that EPA selected the 1800 ppm level as a cut-off for remediation efforts because they believe it adequately addresses long term health concerns and reasonably meets the regulatory criteria. At that level, a national review process is required; however, she believes that there is adequate site specific information and analysis to justify 1800 ppm as the action level for Sandy.

The 1200 ppm level for remediation would not require a national review. There are an additional 62 properties with surface contamination over 1200 ppm and 113 properties with subsurface contamination. Ms. Lavelle pointed out that the numbers for the 1200 ppm level and the 1800 level represented a "worst case" scenario, so that the Working Group participants could get a sense of the potential scope of the problem. She explained that the number of properties needing remediation would likely be smaller. She noted that test samples were taken in zones where the soil was more likely to be exposed and that EPA and UDEQ need to make a close examination of each of the properties in question during the design portion of the project.

Susan Griffin, EPA toxicologist, explained the results of applying the IEUBK Model to the data from historic Sandy and noted that the Model predicts that at current levels of lead concentration in soil, more than 8% of the children are likely to be exposed to lead. As a result, the option of "no further action" is simply not feasible for EPA. She invited the Working Group instead to focus on:

- Whether it is appropriate to look at the individual yard or at the community as a whole to determine potential exposure, given that children typically move beyond their own yards
- What type of action should EPA take, given that "no further action" is not an acceptable alternative
- The variability parameters used in the IEUBK Model which would impact on the type of remediation action which is appropriate for this particular situation

Ms. Griffin explained that 1800 ppm is a screening tool that triggers a common-sense approach and application of professional judgment to determine remediation.

Survey Results

The preliminary results of a survey of the residents, commissioned by the City of Sandy and ASARCO, were presented to the Group. These results indicated that only 5% of the residents listed lead in the soil as the most important health and safety issue for their neighborhood. 63% of those residents rated the level of risk associated with lead in the soil as low or very low, while only 14% rated that risk as high or somewhat high. Copies of a summary of the results was presented to the Working Group.

Working Group Discussion

The participants engaged in a detailed discussion of the interests expressed in view of EPA's regulatory goals for historic Sandy and considered a number of remediation alternatives.

Working Group Proposal

The City of Sandy made the following proposal as a possible conclusion for the remediation program for historic Sandy:

- Set the remediation action level at 1800 ppm based on the arithmetic mean for a yard
- Remediate up to 13 yards where the surface soil is greater than 1800 ppm and up to 54 yards where the subsurface contamination is greater than 1800 ppm. EPA will examine each property individually to determine whether the soil lead level actually exceeds this standard. EPA and UDEQ officials will work with ASARCO engineers to examine carefully each potential yard to determine how many need to be remediated and to what extent
- Remediate each yard necessary, through soil removal, to give complete closure to this project
- Do not implement institutional controls, except on City-owned land, because the City does not have the personnel to monitor institutional controls
- Take no action outside these 67 yards
- State that the rest of historic Sandy is clean
- Inform EPA Headquarters that the City of Sandy will not support an action level of 1200 ppm, given the blood lead level tests and the absence of any child with a blood lead level exceeding 10 ug/dl.

The Working Group discussed this proposal and agreed that it met their various needs. The representatives of each participating group agreed to submit the proposal to their organizations, recommending its approval. EPA will work with UDEQ and ASARCO to determine exactly which properties, of the 67, will need to be remediated and to what extent. EPA will discuss the proposal with EPA headquarters and will recommend that it be accepted. In addition, Bonnie Lavelle agreed to raise the question of "no further action" with EPA Headquarters and to do her best to communicate the community's interests to EPA Headquarters on why going to an action level of 1200 ppm is inappropriate for historic Sandy, based on the following factors, among others:

- The large number of properties involved is not an acceptable cost-effective remedy.
- If the 1200 ppm level were adopted, the cost of remediating so many properties would require the consideration of institutional controls, which neither UDEQ nor the community will accept.

- There is no proof--even at the 4000 ppm action level--that there have been any health problems for the residents of historic Sandy.
- If EPA is only 3% (8% minus 5%) off its regulatory target at the 4000 ppm level, then action at the 1800 ppm level is sufficient.

Next Steps:

1. The Working Group created a Task Group to examine the 67 properties in detail, focusing on the sampling methodology and the depth sample results to identify those properties which require remediation at the 1800 ppm action level. The Task Group will present its report at the next meeting. This Task Group is composed of Bonnie Lavelle and Lori Jensen (EPA); Jim Fricke (ASARCO); and Cliff Vaterlaus (UDEQ). Susan Griffin (EPA), Scott Everett (UDEQ), and Phil Glenn (City of Sandy) will provide resource support.
2. The representatives of each participating group will present the proposal to their organizations for approval and report back to the Working Group at the next meeting.
3. If EPA needs direct input from the historic Sandy community, regarding this proposal, it will request that input.
4. If EPA needs assistance in presenting this proposal to EPA Headquarters, UDEQ will provide support and be the contact point for the other representatives.
5. **The next meeting date/time for the Working Group will be:**

   Wednesday, July 30, 1997

   9 AM to 3 PM

   City Hall - Sandy, Utah